

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended). A simulation method for executing description rows of each description block describing functions of a semiconductor device to simulate the operation of the semiconductor device, each description block including first to n-th description rows, and generating a coverage result indicating an executed description row for each description block, comprising the steps of:

executing a description row for a description block during a simulation time;

~~recording~~ generating an executed-row history for [[each]] the description block indicating an executed description row in the simulation time; and

~~if the same~~ every time the first row in the description block is executed performed at the same during that simulation time, deleting the executed-row history previously generated in the simulation time and generating a new executed-row history for the description block to generate the coverage result ~~a previous executed-row history of the description block performed at the time.~~

2. (Currently Amended) ~~[[A]]~~ The simulation method of claim 1, further comprising the steps of:

analyzing, for each description block, correspondence information that represents correspondence between combinations of input signals to the description block and executed rows;

in a simulation execution process, tracing input signals to each description block; [[and]]
analyzing the executed rows according to an analysis result of the correspondence
information that represents the correspondence between combinations of input signals to the
description block and executed rows and a trace result of the input signals to the description
block, wherein

the executed-row history for the description block is generated based on the combination
of the input signals and the executed rows.

3. (Currently Amended) [[A]] The simulation method of claim 1, further comprising
the steps of:

analyzing, for each description block, correspondence information that represents
correspondence between combinations of input signals to the description block and executed
rows;

in a simulation execution process, tracing input signals to each description block every
unit time; [[and]]

analyzing the executed rows according to an analysis result of the correspondence
information that represents the correspondence between combinations of input signals to the
description block and executed rows and a trace result of the input signals to the description
block, the trace result being obtained every unit time, wherein

the executed-row history for the description block is generated based on the combinations
of the input signals and the executed rows, and the trace result of the input signals.

4. (Currently Amended) [[A]] The simulation method of claim 1, further comprising the steps of:

analyzing, for each description block, correspondence information that represents correspondence between combinations of input signals to the description block and executed rows;

in a simulation execution process, tracing input signals to each description block every cycle; [[and]]

analyzing the executed rows according to an analysis result of the correspondence information that represents the correspondence between combinations of input signals to the description block and executed rows and a trace result of the input signals to the description block, the trace result being obtained every cycle, wherein

the executed-row history for the description block is generated based on the correspondence between the combinations of the input signals and the executed rows, and the trace result of the input signals.

5. (Currently Amended) An emulation method, comprising the steps of:

extracting, for each description block, signals used in a hardware emulation process which correspond to input signals to the description block;

analyzing correspondence information that represents correspondence between combinations of the signals used in the hardware emulation process which correspond to the input signals to the description block and executed rows;

in an emulation execution process, tracing the signals used in the hardware emulation process which correspond to the input signals to each description block; [[and]]

analyzing executed rows according to the correspondence information that represents the correspondence between the combinations of the signals used in the hardware emulation process which correspond to the input signals to the description block and the executed rows and a result of the tracing of the signals used in the hardware emulation process which correspond to the input signals to the description block; and

generating a correct coverage result based on the input signals to the description block and the executed rows, and the result of the tracing of the signals used in the hardware emulation process.

6. (Currently Amended) An emulation method, comprising the steps of:
extracting, for each logic cone, signals used in a hardware emulation process which correspond to input signals to the logic cone;

analyzing correspondence information that represents correspondence between combinations of the signals used in the hardware emulation process which correspond to the input signals to the logic cone and executed rows;

in an emulation execution process, tracing the signals used in the hardware emulation process which correspond to the input signals to each logic cone; [[and]]

analyzing executed rows according to the correspondence information that represents the correspondence between the combinations of the signals used in the hardware emulation process which correspond to the input signals to the logic cone and the executed rows and a result of the tracing of the signals used in the hardware emulation process which correspond to the input signals to the logic cone; and

generating a correct coverage result based on the combinations of the signals used in the

hardware emulation process corresponding to the input signals to the logic cone and the executed rows, and the result of tracing of the signals used in the hardware emulation process.

7. (Currently Amended) [[A]] The simulation method of claim 1, further comprising
the steps of:

analyzing, for each description block, input conditions for executing respective rows
included in the description block;

analyzing correspondence information that represents correspondence between the input
conditions and executed rows;

in a simulation execution process, tracing input signals to each description block; [[and]]
analyzing executed rows based on the correspondence information that represents the
correspondence between the input conditions and the executed rows and a tracing result of the
input signal to the description block, wherein

the executed-row history for the description block is generated based on the input
conditions and the executed rows, and the tracing result of the input signal to the description
block.